MD-370
Carroll County

DHMH ordered Black and Decker to conduct a ground water investigation after chlorinated solvents were identified in their production wells in 1984.

In 1986, Black and Decker installed an air stripping unit to provide for remediation of the potable water supply.

Black and Decker had carbon filters installed on a dairy barn well downgradient of the site in 1987 due to PCE contamination

In 1989, Weston completed an investigation which identified two plumes: a TCE plume on the eastern portion of the site and a PCE plume on the western portion.

NUS Corporation completed a Site Inspection for the EPA in 1991.

Weston installed a ground water remediation system in 1994.

Black and Decker entered the State Deferral Program in 1995, agreeing to address the ground water contamination under State oversight.

Weston installed a soil vapor extraction system in 1997.

BLACK AND DECKER

Site Description

The 286-acre Black and Decker property is located at 3626 Hanover Pike, in the predominantly rural setting of northeastern Carroll County. Approximately 140 acres of the northern and western sections of the property are leased to local dairy farmers. The main facility is situated centrally on the remaining 146 acres. A wastewater treatment plant and associated lagoons are located on the south end of the property.

Site History

The site was purchased in 1951 by Black and Decker. Prior to that time, it was probably used for agricultural purposes. From 1952 to 1987, the plant's activities were predominantly the manufacturing of power hand tools. By 1987, the plant had shifted operations from manufacturing to distribution. Currently, the facility serves as the principal distribution center of Black and Decker products on the East Coast.

During the manufacturing period from 1952 to 1987, several areas on the property are believed to have been used for disposal of debris and off-specification tool products. In Black and Decker's manufacturing processes, numerous solvents and oils were used and stored on-site in both underground storage tanks (USTs) and aboveground storage tanks. All of the USTs have been excavated, cleaned and filled with sand.

Environment Investigations

Contamination of production wells was first identified at Black and Decker in April 1984 when a local gasoline spill was investigated. In September 1984, in response to this contamination, the Maryland Department of Health and Mental Hygiene (DHMH) ordered Black and Decker to provide information regarding storage and disposal of chlorinated solvents, provide surface water and ground water sampling results, identify extent and source of contamination and to implement corrective action if necessary. In April 1985, Geraghty and Miller installed 21 monitoring wells as part of the investigation. A soil investigation was completed by BCM Eastern in 1986. BCM Eastern installed an air stripper unit to treat the on-site potable water supply when the investigation revealed that the water was contaminated with chlorinated solvents. Additionally, in 1987 carbon filters were installed on an adjacent farm well used to water dairy cattle due to tetrachloroethene (PCE) contamination.

Roy F. Weston (Weston) was contracted to perform an environmental investigation, which was completed in 1989. Weston installed 17 additional monitoring wells as part of this investigation. Seven areas were identified as possible sources of ground water and/or soil contamination: the previous storage tank areas, a past plant landfill area, two past heat-treating residue and waste deposition areas, a past off-specification product disposal area, an area of past used-product burning and the on-site lagoons. A UST area was identified to be a continuing source of ground water contamination. The investigation also identified separate plumes of ground water contamination: trichloroethene (TCE) was the primary ground

water contaminant on the eastern half of the site and tetrachloroethene (PCE) was determined to be the primary contaminant on the western half of the site. Weston recommended the installation of a ground water pump and treat system that would create a hydraulic barrier to contaminant migration.

NUS Corporation completed a Site Inspection in February 1991. In ground water samples collected as part of this investigation, TCE was detected at a maximum concentration of 12,000 micrograms/liter (m g/l) in a monitoring well located on the south side of the plant. PCE was detected at a maximum concentration of 1,800 m g/l collected from a monitoring well in the former landfill area located west of the plant. On-site production well samples (prior to filtration) contained TCE and PCE at up to 50 m g/l and 1,600 m g/l, respectively. Outfall effluent contained PCE at up to 89 m g/l. TCE was detected at up to 7 micrograms/kilogram (m g/kg) in sediment collected from the West Lagoon and PCE was detected at up to 46 m g/kg in sediment collected from below the effluent outfall pipe.

From 1990 to 1993, remedial design investigations were undertaken by Black and Decker and ten ground water extraction wells were installed at the site. The installation and testing of the extraction wells resulted in the construction of a ground water remediation system which provides for the hydraulic capture of the contaminated ground water on-site. The remediation system went into full-scale operation in August 1994.

As part of a supplemental investigation, Weston conducted a test pit investigation at the site in August 1996. Only two pits (of eight total) contained waste material. These were in areas that an electromagnetic survey indicated buried metal objects. These pits revealed waste at an initial depth of two feet and extended to eight feet. The waste material included sanding disks with a metallic mesh backing, metal shelving, electrical wiring, and some small metal tubing. Soil sample test results for the waste pit indicated that the waste was not hazardous and did not contribute to ground water contamination at the site.

Weston installed an enhanced soil vapor extraction system at the northernmost corner of the plant building. This system went into full scale operation in November 1997.

Current Status

In the spring of 1993, the Black and Decker site was proposed for the State Deferral Pilot Program due to both the site's potential for inclusion on the National Priorities List and Black and Decker's apparent willingness to undertake necessary remedial actions and investigations at the site. MDE and Black and Decker signed a Consent Order to finalize remedial investigations in April 1995 and since that time remedial investigations have been handled under MDE's State Deferral Program. The ground water remediation system and the enhanced soil vapor extraction system are in operation and continue to remove contamination from the ground water. MDE continues to work with Black and Decker under the State Deferral Program Consent Order to ensure that all requirements of the Consent Order are met.